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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/706,341	11/11/2003	Gerald J. Grott	665-P-5-USA	6820

7590 07/25/2006

Drummond & Duckworth  
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EXAMINER
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GELLNER, JEFFREY L

ART UNIT	PAPER NUMBER
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3643

DATE MAILED: 07/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/706,341

Applicant(s)

GROTT, GERALD J.

Examiner

Jeffrey L. Gellner

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 4-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 4-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC §103*

The following is a quotation of 35 U.S.C. §103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-6 are is rejected under 35 U.S.C. §103(a) as being unpatentable over McManus (AWWA Annual Conf., 1997) in view of Thorborg (US 3,617,554) in further view of Mukhopadhyay (WO 98/06483).

As to Claim 4, McManus discloses a method of using aqueous effluent (page 441, 1<sup>st</sup> para.) comprising collecting water contaminated with Na or Ca or Cl salts (inherent in “agricultural wastewater” of page 441, 1<sup>st</sup> para.) and using in a cooling tower it dissipate heat (page 441, 1<sup>st</sup> para.). Not disclosed is processing the contaminated water into a first effluent of clean water and second effluent of wastewater, the first effluent of clean water having a sodium content higher than the contaminated water but having a salt content to high for potable use, the second effluent having 0.15% or more by weight of salts; and analyzing the clean water to determine if its sodium content is too high for potable use. Thorborg, however, discloses separating waste water into two effluents (col. 2 lines 11-57, Figure), the first effluent having a sodium content higher than the contaminated water (from col. 2 lines 25-40 where it is known to soften water by exchanging, for example, Ca with Na), the second effluent having a having 0.15% or more by weight of salts (from fact that this effluent has increase in salt content); and,

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Mukhopadhyay discloses analyzing the clean water to determine if its sodium content is too high for potable use (from Table 1 on page 40 where salt concentrations are given which must come from chemical analysis of the water). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of McManus by separating waste water into two effluents (col. 1 lines 38-44), the first effluent having a salt content lower than the contaminated water, and the second effluent having a having 0.15% or more by weight of salts so as to use an efficient and effective system; to analyze the water as disclosed by Mukhopadhyay so as to know if the system is working and how effectively; and, to have the first effluent with a salt content too high for potable so as to use the system in an economically efficient and effect manner by “cleaning” the water to only the level needed for its use.

As to Claim 5, McManus as modified by Thorborg and Mukhopadhyay further disclose a step of water softening (3<sup>rd</sup> para of page 441 of McManus).

As to Claim 6, McManus as modified by Thorborg and Mukhopadhyay further disclose the use of precipitation (inherent in “line/soda softening” of 3<sup>rd</sup> para. of page 441 of McManus).

### ***Response to Arguments***

Applicant's arguments filed 2 May 2006 have been fully considered but they are not persuasive. Applicant's argument are: (1) no motivation to combine references (Response at bottom of page 6); and, (2) none of the references disclose or suggest processing water to create a clean water effluent having increased sodium or salt content too high for potable use (Remarks page 8, last paragraph).

As to argument (1), Examiner considers the three references used in the rejections to be combinable because they all deal with water use and purification.

As to argument (2), Examiner considers all three references to disclose water softening which would in normal use substitute Na ions for Ca ions. The Na content in the clean water would rise relative to its content in the original water. See Sloan (US 3,174,523) at col. 1 lines 20-33 for a description of ion exchange during water softening.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey L. Gellner whose telephone number is 571.272.6887. The examiner can normally be reached on Monday-Friday, 8:30-4:00, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Poon can be reached on 571.272.6891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'JLG', with a stylized flourish at the end.

Jeffrey L. Gellner  
Primary Examiner  
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